Issue Brief

Health Department-Federally Qualified Health Center Partnerships to Improve Hypertension Identification, Management, and Control

This issue brief discusses how federally qualified health centers (FQHCs) can work with public health agencies to improve hypertension control and highlights examples of such successful partnerships from the ASTHO Million Hearts Learning Collaborative.

BACKGROUND

Heart disease and stroke are the first and fourth leading causes of death in the United States, respectively. Heart disease alone is responsible for 1 in 4 deaths in the United States,[1] and each year, a staggering 1.5 million Americans have heart attacks or strokes.[2] Hypertension is a major risk factor for heart attack and stroke, and uncontrolled hypertension affects 36 million individuals in the United States. At least 14.1 million of these individuals are unaware that they have hypertension, and 5.7 million know that they have it but do not have it controlled.[3]

The national Million Hearts initiative (Million Hearts) focuses, coordinates, and enhances cardiovascular disease prevention activities across the public and private sectors with the goal of preventing one million heart attacks and strokes by 2017. Million Hearts aims to prevent heart disease and stroke by improving access to effective care, improving the quality of care for the "ABCS" of heart health,[i] focusing clinical attention on preventing heart attack and stroke, activating individuals to lead a heart-healthy lifestyle, and improving prescription and adherence to appropriate medications for the ABCS.[4]

Achieving Million Hearts' goals requires collaboration between clinical, public health, and community partners. The growing national emphasis on population health and preventive care—for example, through the Affordable Care Act—highlights the importance of these partnerships. A 2012 report from the Institute of Medicine recognized that new opportunities are emerging to bring public health and primary care together in ways that will yield substantial and lasting improvements for individuals, communities, and populations.[5] Initiatives such as the Association of

Opportunities for State Health Agencies to Support FQHCs

- Identify, support, and promote integration of public health and patient-level data systems that inform quality improvement and patient panel management.
- Share evidence-based resources and best practices.
- Facilitate linkages between local public health agencies and FQHCs.
- Promote and support integrated care delivery models.
- Support FQHC quality improvement efforts.
- Convene stakeholders across sectors to align state-level initiatives and resources.
- Support sustainability.
- Advocate for national efforts to advance hypertension management and quality improvement.

[i] The ABCS are: Aspirin therapy when appropriate, Blood pressure management, Cholesterol control, and Smoking cessation. (Million Hearts. "The Initiative." Available at http://millionhearts.hhs.gov/aboutmh/achieving-goals.html. Accessed 5-28-2014.)

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State and Territorial Health Officials' (ASTHO) Primary Care and Public Health Collaborative emphasize and support this integration.[ii]

Hypertension management is an ideal focal area for integration efforts. ASTHO is supporting Million Hearts' focus on improving blood pressure control—as well as encouraging movement toward primary care and public health integration—by facilitating a Million Hearts Learning Collaborative. Participating states use a quality improvement model to guide the work of cross-sector teams that include representatives from state and local health agencies, healthcare systems and providers, quality improvement organizations, payers, and health information technology experts.

In the first year of the learning collaborative, seven states worked directly with at least 12 federally qualified health centers (FQHCs) to improve blood pressure identification, management, and control. This issue brief describes these partnerships and highlights opportunities for state health agencies to partner with FQHCs in their own states.

WHAT ARE FQHCs?

FQHCS are community-based, patient-directed health center organizations that provide comprehensive, culturally competent, quality primary healthcare services to medically underserved communities and vulnerable populations (Kathy McNamara, personal communication, November 7, 2014). FQHCs, along with other types of community health centers, receive funding through the federal Health Center Program, and have five "essential elements": (1) They are located in high-need areas; (2) They provide comprehensive health and related services (including "enabling services"); (3) They are open to all community residents, regardless of ability to pay, with sliding scale fee charges based on income; (4) They are governed by community boards that include a majority (at least 51%) of active, registered users of the health center; and (5) They follow performance and accountability requirements regarding their administrative, clinical, and financial operations. There are more than 1,200 FQHCs across the 50 states and U.S. territories, operating more than 9,000 delivery sites and serving more than 22 million patients annually[6]

FQHCs are important partners in improving hypertension identification and control for two reasons:

FQHCs serve patient populations that are at higher risk for hypertension.

FQHCs and public health agencies have a common mission to improve community health, particularly among vulnerable and underserved populations.[7] FQHCs serve all community members regardless of insurance status or ability to pay, and the demand for community health center services is growing. The number of uninsured patients getting care at health centers has grown 62 percent since 2000, and individuals ages 45 to 64 living in poverty and with chronic illnesses are one of the fastest growing population groups health centers serve. Health centers now serve 1 in 7 uninsured people nationally, including 1 in 5 low-income uninsured patients.[8] Hypertension prevalence is higher in many of these population groups, including older adults, adults with lower family income, lower education levels, individuals on public health insurance, and people with diabetes or obesity.[9] In fact, hypertension is the most frequent primary care visit in a community health center.[10]

[ii] The PCPH Collaborative is a partnership of more than 50 organizations and more than 100 individual partners seeking to inform, align, and support the implementation of integrated efforts that improve population health and lower healthcare costs.

FQHCs are well-positioned to improve clinical and community systems of care that address hypertension control.

FQHCs are uniquely positioned, not only because they serve higher-risk patient populations, but also because they often have existing connections with state and local public health agencies and community partners. These connections are important to help connect patients to community resources to help them better manage their blood pressure. The Health Resources and Services Administration has prioritized that all federally qualified health centers become certified Patient Centered Medical Homes (PCMHs) by 2016, which will further support a focus on "medical home neighborhoods."

THE ROLE OF FQHCs IN HYPERTENSION CONTROL

FQHCs play a number of important roles in supporting systems of care to address hypertension. These roles fall under three primary "levers": (1) Access and leverage both public health and patient-level clinical data to identify and manage patient panels; (2) Create and standardize clinical protocols and workflow to better manage and follow up with patients identified with hypertension; and (3) Partner with local public health and community partners to improve blood pressure screening rates and support patient blood pressure self-management.

Data

FQHCs are increasingly using electronic health record systems (EHRs) to manage patient health information. In 2012, nearly 96 percent of all FQHCs had partially or fully installed EHR systems in place.[11] The shift from paper records to EHRs allows FQHCs to move beyond individual patient health information to extract, analyze, and use population-level health data to inform quality improvement efforts and manage patient panels more effectively. For example, FQHCs in the ASTHO Million Hearts Learning Collaborative are using EHR data to identify patients with high blood pressure but no official hypertension diagnosis. They are also using EHR data to create hypertension registries—lists of patients who have been identified as having or diagnosed with high blood pressure. These registries allow providers to more effectively identify, manage, monitor, and follow up with patients with undiagnosed hypertension.

EHR data can also be used to track FQHCs' patient population-wide hypertension control rates over time. Monitoring overall control rates offers two benefits. First, it allows FQHCs to meet federal reporting requirements. All federally funded health centers are required to report to HRSA's Uniform Data System on the percentage of patients ages 18-85 with diagnosed hypertension whose blood pressure was less than 140/90mmHg at the time of the last reading.[12] Other federal reporting systems require similar indicators, such as National Quality Forum Measure 0018 (NQF 0018). Second, monitoring aggregate hypertension control rates over time can inform clinical quality improvement efforts. FQHCs can use clinical dashboards to allow individual providers to view their own control rates across their patient panel, as well as monitor clinic-wide control rates.

Supporting EHR system capability to manage patient panels and create meaningful clinical quality improvement reports requires significant time and administrative resources. However, there are incentives for FQHCs to achieve Meaningful Use of certified EHR technology to improve patient care. FQHCs can partner with local- and state-level organizations for technical support. These partners include health center-controlled networks, quality improvement organizations or networks, and other quality improvement and health IT-focused organizations. For example, the Community Health Action Network (CHAN) in New Hampshire—the only health center-controlled network in the state—hosts a robust data

warehouse, which supports the creation of clinical and operational reports for its health center members. Through the ASTHO Million Hearts Learning Collaborative, CHAN created customized hypertension registries for each clinic in its network, including two FQHCs (Lamprey Health Care in Nashua, and Manchester Community Health Center in Manchester). CHAN also provides technical support to help the FQHCs use their registries and reports effectively.

In addition to leveraging clinical data, FQHCs are increasingly working with community partners to use local public health and community data to identify target populations for community-based interventions. These data may include local demographic and hypertension prevalence data, hospital discharge data,[iii] and county- or zip code-level "heat maps" that indicate geographic areas with higher burden of hypertension. FQHCs may also use "medication adherence" data to better understand the extent to which patients are filling and refilling hypertension medication prescriptions, which may indicate a need to investigate barriers to accessing medication. Through the ASTHO Million Hearts Learning Collaborative, the Vermont Department of Health and three payers (Vermont Medicaid, MVP Health Care, and BlueCross BlueShield of Vermont) examined claims data for 64,400 individuals to identify patients with hypertension and assess medication possession ratios.[iv] They found that between 29 percent and 49 percent of beneficiaries with hypertension do not have paid prescription drug claims. Two of the three insurers (BlueCross BlueShield and Medicaid) then worked with practices and providers to provide information about these gaps in prescription drug claims.

Standardizing Clinical Practice

FQHCs can develop and implement clinical protocols, procedures, and workflows to ensure consistent, standardized hypertension screening, diagnosis, and clinical management. Establishing these internal processes not only ensure consistent, coordinated care for every patient, it also supports FQHC efforts to achieve recognition as PCMHs. FQHCs can standardize clinical processes in multiple ways:

Ensuring accurate blood pressure measurement. Blood pressure measurement reliability is important to correctly diagnose hypertension and ensure population-level data is correct. Incorrectly calibrated equipment and incorrect blood pressure measurement techniques among staff reduce data validity and reliability and could also lead to inappropriate treatment. FQHCs can improve measurement accuracy by conducting clinic audits to ensure blood pressure equipment is properly calibrated and training staff on proper measurement technique.

Implementing evidence-based clinical treatment protocols. Treatment protocols—also sometimes called clinical algorithms or decision trees—are clinical decision-making tools that help providers make the best treatment decisions for each individual patient. Evidence-based treatment protocols can have a powerful impact on blood pressure control by clarifying medication and other treatment options for different blood pressure measurements, expanding the types of staff who can assist with patient follow-up, and, when embedded in EHR systems, providing clinical decision support at the point of care.[13] Protocols allow all providers in a clinic to use the same decision supports to treat patients, ensuring that all patients with hypertension receive standardized care. Million Hearts encourages all healthcare

[iii] Hospital discharge data monitors hypertension-related emergency department (ED) and inpatient visits and can be used to monitor both health and economic impacts of interventions over time.

[iv] Medication possession ratio is a method of assessing medication adherence based on prescription fill rates. It is defined as the "proportion of days covered" by a particular medication, or the sum of the days supply for all medication claims during a defined period of time divided by the number of days elapsed during the period.

entities—including FQHCs—to adopt clinical protocols to manage hypertension. A number of evidence-based hypertension protocols already exist, and Million Hearts provides resources to help clinics develop their own.

If an FQHC already had protocols in place, it can ensure that they align with national guidelines for clinical hypertension management. Several such guidelines were recently updated, including the Joint National Committee on Prevention, Detection, Treatment and Evaluation of High Blood Pressure's 2014 Evidence-Based Guideline for the Management of High Blood Pressure in Adults. Healthcare and public health stakeholders continue to discuss differences between these guidelines and their implications for clinical practice and patient outcomes. Several resources highlight these discrepancies to help providers and clinics make informed decisions about which guidelines to use.

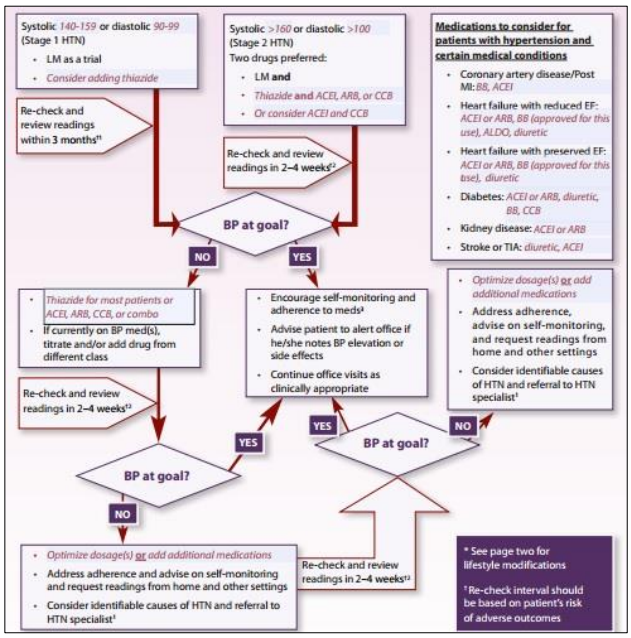

Figure 1: Template Hypertension Treatment Protocol (Centers for Disease Control and Prevention. Protocol for Controlling Hypertension in Adults. Atlanta, Georgia. 2013.)

Adapting and implementing integrated clinical workflows. Clinical workflows are established processes that describe a series of tasks that accomplish a defined step in clinical patient care, along with how the tasks are accomplished, by whom, in what sequence, and at what priority level.[14] Clinical workflows may include components such as pre-visit reminder phone calls, intake assessments, clinical assessments and interventions, in-office patient education sessions, check-outs, and follow-ups. FQHCs can review their clinical workflows to ensure that they are maximizing use of all healthcare team members, consistently engaging and following up with patients to reduce "no-shows" and support patient self-management, systematically assessing barriers to effective management, and connecting patients with community resources as indicated. Through the ASTHO Million Hearts Learning Collaborative, two FQHCs in New Hampshire (Lamprey Health Care in Nashua and Manchester Community Health Center in Manchester) are adapting a model clinical workflow developed by the Cheshire Medical Center/Dartmouth-Hitchcock Keene Clinic, a 2014 Million Hearts Hypertension Control Champion. The workflow establishes staffing plans and processes to manage patient panels in the clinics' hypertension registries. All 13 providers at the Manchester Community Health Center are now using the workflow and registry for patient panel management.

Establishing Linkages with Community and Public Health Resources

FQHCs are well-positioned to support community-wide systems that support patients with hypertension across all clinical, public health, and community settings. By establishing partnerships with local health departments, faith-based communities, and other community organizations, FQHCs help support a patient-centered care model and address barriers to better patient self-management. These partnerships may focus on blood pressure screening and referrals to care, or connecting patients to lifestyle management resources.

Establishing community-based screening and referral systems. Through partnerships with local health departments and community organizations, FQHCs can help establish community-based blood pressure screening programs and referral systems that connect individuals with hypertension to clinical care. Local health departments and other locations, such as faith-based community buildings and fire or EMS halls, often serve as blood pressure screening sites. FQHCs can then accept patients referred from these sites and provide appropriate clinical care. In addition, FQHCs can work with their local health departments to refer and connect patients identified with hypertension at the clinic to community-based self-management resources. In addition, care coordination units—often supported by local health departments—offer services that connect county residents with community services such as healthcare, medication assistance, transportation, housing, counseling, dental care, food assistance, utility assistance, and vision and hearing needs.[15] Establishing referral systems to these community resources supports patient blood pressure self-management and addresses critical barriers to care such as lack of transportation or medication costs.

Providing access to healthy lifestyle resources. FQHCs can partner with community-based organizations that offer services supporting overall healthy lifestyles. For example, the Manchester Community Health Center in New Hampshire partners with the local YMCA to offer subsidized memberships to patients referred from the clinic.

Leveraging Team-Based Care and Expanded Primary Care Team Models in Clinical and Community Settings

FQHCs can review and modify roles for all clinical care team members to ensure they are working "at the top of their licenses" and expand their roles to focus on population or panel management. For example, medical assistants can monitor hypertension registries and follow up with patients between office visits. Nurses can hold office-based blood pressure clinics that offer free walk-in blood pressure checks.

FQHCs can extend hypertension management support systems into the community by building partnerships with community-based care providers such as community pharmacists, community health workers, and public health nurses. These care team members can assist with community-based blood pressure screening, support patient blood pressure self-management, and assess and address barriers to effective management. An issue brief from the Association of Public Health Nurses describes how public health nurses can participate in Million Hearts and partner with FQHCs.

Supporting Patient Self-Management of Blood Pressure

FQHCs play a critical role in encouraging patient blood pressure self-management, including referring appropriate patients to evidence-based community-based programs like the Stanford Chronic Disease Self-Management Program, the American Heart Association's Check. Change. *Control.* Blood Pressure Program, and CDC's WISEWOMAN program. FQHCs can also train and equip patients to monitor their blood pressure at home. Home blood pressure measurement data is helpful to FQHCs to monitor to inform clinical management decisions for each patient.

OPPORTUNITIES FOR STATE HEALTH AGENCIES

As was already described, hypertension is an ideal condition on which to focus primary care and public health partnership efforts. The Primary Care Public Health Collaborative highlights successes from Million Hearts Learning Collaborative as examples of effective integration.

State health agencies can support Million Hearts in a variety of ways, some of which are outlined in a set of key recommendations that ASTHO developed with expert input in 2013. However, state health agencies have a number of other opportunities to support and partner with FQHCs to improve hypertension identification, management, and control: they can expand FQHC "reach" to target patient populations, address disparities in healthcare access and use, connect and convene state and local partners to coordinate efforts and resources, support and promote data and communications systems and infrastructure, and support sustainability by prioritizing hypertension initiatives at the state level and ensuring that state priorities align. Select strategies are described in more detail below.

Support and promote data systems that inform quality improvement and patient panel management. State health agencies can facilitate partnerships between FQHCS and state-level quality improvement and health IT partners such as state primary care associations, health center-controlled networks, quality improvement organizations, state Medicaid agencies, and private payers. In some cases, state health agencies' quality improvement or epidemiology experts may also provide direct technical support or training.

All of these partnerships not only allow FQHCs to leverage partner health IT infrastructure, they establish data-sharing systems that ensure that data reaches the "right person, at the right time, for the right purpose." These systems may be local or state level in scope and may involve sharing and coordinating clinical, public health, healthcare and medication claims data. For example, state health agencies can: Facilitate connections to health IT experts to create clinic- or state-level hypertension registries; Provide assistance to FQHCs as they use EHR data to establish baseline blood pressure control rates and measures such as NQF 18, as well as help develop measure specifications for non-standard measures; Generate GIS maps by zip code for community-level clinical and public health data, such as hospital discharge rates, and share it with FQHCs and local health departments to help identify populations with higher levels of hypertension-related hospitalizations; Establish systems with state Medicaid and private payers to analyze medication claims data to share with providers; and Support development of comprehensive statewide health and insurance data exchange systems such as All Payer Claims Databases and health information exchanges.

Share evidence-based resources and best practices. State health agencies can identify and share with FQHCs evidence-based resources such as national hypertension guidelines, model clinical protocols, success stories, and other tools that FQHCs can use in hypertension management quality improvement efforts.

Facilitate linkages between local public health agencies and FQHCs. State health agencies provide a critical connection to local public health agencies, and can help establish relationships between these agencies and their local FQHCs. States in the ASTHO Million Hearts Learning Collaborative have demonstrated that these local-level connections are essential to creating comprehensive systems of care that span community and clinical settings. As described in an ASTHO issue brief, these public health-clinical linkages also support better coordination of community health improvement efforts, including community health needs assessments.

Support integrated care delivery models. State health agencies can work with state Medicaid agencies and private payers to create incentives for FQHCs and other health centers to use and bill for services

provided by non-physician care team members, such as community health workers. State health agencies can also connect FQHCs with local health department resources and staff, including public health nurses.

Support FQHC quality improvement efforts. State health agencies can develop and leverage relationships with state healthcare provider membership associations and other organizations to share best practices and support quality improvement. For example, through the ASTHO Million Hearts Learning Collaborative, the Ohio Department of Health partnered with the Ohio Academy of Family Physicians to engage 11 diverse family practices in Summit County, Ohio, including several FQHCs, in a five-month hypertension clinical quality improvement initiative. The participating practices successfully developed and implemented protocols addressing clinical hypertension management, follow-up, and referral, resulting in permanent and meaningful change in their facilities.

Convene stakeholders across sectors to align state-level support and resources. State health agencies, and particularly state health officials, are well-positioned to bring together diverse stakeholders including public and private payers, health IT partners, quality improvement experts, state primary care associations, health center-controlled networks, and other state agencies. These stakeholder groups may work to align state-level initiatives and policies, collectively identify populations in greatest need of intervention, design and establish statewide data-sharing systems, and coordinate funding and other resources. State health officials in particular can ensure state-level strategic plans, policies, and resources align to support FQHCs and other healthcare providers to address hypertension.

Support sustainability: State health agencies can also establish and leverage state-level partnerships to support sustainability. This may involve connecting Million Hearts efforts to other state initiatives across programs and agencies, establishing long-term relationships with key quality improvement, health IT, and healthcare partners, and establishing and coordinating their own funding streams to scale up and sustain successful initiatives. For example, states in the ASTHO Million Hearts Learning Collaborative plan to leverage funding through CDC grant programs 1305 and 1422[v] and the State Innovation Models Initiative to spread and sustain successful models.

Support national efforts to advance quality improvement around hypertension management. State health agencies can support aligning federal reporting requirements to reduce the reporting burden on FQHCs. States in the ASTHO Million Hearts Learning Collaborative have indicated that a lack of alignment across these reporting systems creates challenges for state health agencies and FQHCs alike, and diminishes the time and resources available to focus on hypertension management quality improvement.

STATE EXAMPLES—ASTHO MILLION HEARTS LEARNING COLLABORATIVE

District of Columbia Department of Health

The District of Columbia Department of Health (DC DOH) is leading an interdisciplinary team of healthcare partners including one FQHC, Unity Health Care (Unity), to identify patients with

[v] "1422"is the informal short reference term for the CDC funding opportunity announcement "State and Local Public Health Actions to Prevent Obesity, Diabetes, and Heart Disease and Stroke – financed solely by Prevention and Public Health Funds."

uncontrolled and undiagnosed hypertension and provide them with targeted interventions and referrals to community resources. With technical assistance and funding from DC DOH (funding was provided through the ASTHO Million Hearts Learning Collaborative grant), Unity and the other community health centers leverage their health IT and quality improvement staff, when available, to pull data from their EHR systems and run reports on the following metrics: the number of patients served by the site; the number of patients whose EHRs listed a hypertension diagnosis; the number of patients in the target population (African American residents ages 18 and older living in Wards 5 and 7, estimated to be 35,149 residents); the number of patients in the target population who were diagnosed with hypertension; and the number of patients in the target population who had undiagnosed hypertension (defined as patients with three or more visits in a one-year period with blood pressure measurements of 140/90mmHg or greater and no diagnosis of hypertension in their EHR).

To date, nine community health centers and seven physician practices have reported data on 40,078 patients with diagnosed hypertension. From January 1st-October 31st 2014, the nine community health centers found that 14,838 of their 26,553 patients were under control. This represents a 2 percent increase in hypertension control rates between 2013 and 2014. In addition, eight of these community health centers identified 3,950 patients with undiagnosed hypertension in 2013, which translates to an overall hypertension diagnosis rate baseline of 64 percent. The team has put protocols in place for non-physician healthcare team members to conduct follow-up visits with these patients. Next steps include working with additional healthcare partner sites across the city to scale up the baseline data collection process. Washington, D.C. has 14 hospitals, 51 health centers (including six federally qualified health centers), 8,000 physicians, and six government agencies with public health functions. DC DOH will play a critical role in this work by sharing information with other health systems and partners, such as the DC Primary Care Association. The data will be used to target specific patient populations for follow-up.

Illinois Department of Public Health

The Illinois Department of Public Health (IDPH) is working with local partners in Macon and Peoria Counties, including the local health departments and two FQHCs (the Community Health Improvement Center in Decatur, and the Heartland Community Health Center in Peoria) to use population and clinical data to inform local hypertension initiatives. IDPH's Division of Patient Safety and Quality staff analyzed population level data on hypertension hospitalizations and patient level data from each clinic to identify priority populations and patients. IDPH's epidemiologist, with support from a graduate intern from Johns Hopkins Bloomberg School of Public Health, used county level hospital and emergency department discharge data and developed an adaptation of the Prevention Quality Indicator (PQI)[vi] 7: Hypertension Admission Rate data algorithm. IDPH staff then created geographic information systems, or GIS, maps of discharge rates by zip code for Macon and Peoria Counties, as well as graphs of discharge rate trends over time and stratified case counts by race/ethnicity and payer. These reports were shared with public health departments and provider and community partners in both Macon and

[vi] Prevention Quality Indicators are a set of population-based measures developed by the Agency for Health Care Research and Quality (AHRQ) that use hospital inpatient discharge data to identify quality of care for conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease. PQI 7 is defined as "admissions with a principal diagnosis of hypertension per 100,000 population, ages 18 years and older. Excludes kidney disease combined with dialysis access procedure admissions, cardiac procedure admissions, obstetric admissions, and transfers from other institutions" (Agency for Health care Research and Quality. "Hypertension Admission Rate: Technical Specifications." Available at: http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V45/TechSpecs/PQI%2007%20Hypertension%20Admission%20Rate.pdf. Accessed 6-10-14.)

Peoria counties, allowing each health department to target vulnerable populations with racial and socioeconomic disparities in hypertension management for further action.

In addition, IDPH used open source software (popHealth) to create quality dashboards from EHRs for each provider and for the practice in both FQHCs. Using quality metrics based on Meaningful Use clinical quality measures compared to NQF 18, dashboards identified patients with uncontrolled hypertension for additional care and follow-up. Dashboards also created patient panels for each provider indicating their performance on NQF 18. Both data sources (population level and patient level) combined to facilitate collaboration in support of local systems change to improve hypertension management and health outcomes. Community leaders, hospital systems, agencies on aging, and employers partnered with the FQHCs to create such systems. FQHC data was also used to target specific patient groups for intervention and assess barriers to care and medication adherence. Additional counties have expressed interest in working with IDPH to obtain similar data to identify target populations and geographic areas for intervention. IDPH plans to expand data analysis to these additional counties and FQHCs and establish an ongoing data sharing system for local partners. The PQI algorithm will be used to monitor trends in hospitalization and emergency visits. Further research into addition uses of both data sources is planned for future funding opportunities.

New York State Department of Health

The Whitney M. Young, Jr. Health Center (WMYHC) in Albany, New York, an FQHC, is working with the New York State Department of Health (NYSDOH) and other state and local partners to develop and implement a set of evidence-based clinical practice guidelines to create a "clinical pathway" that leverages team-based care and patient self-management to improve hypertension identification and management. WMYHC is a patient-centered medical home that serves a diverse population of nearly 21,000 patients.

Specific components of the pathway include: (1) Identifying patients with undiagnosed hypertension using WMYHC's patient registry; (2) Conducting "pre-visit planning calls" with patients diagnosed with hypertension who have an office visit scheduled in the coming week; (3) Developing and implementing evidence-based adult hypertension treatment guidelines that leverage a team-based care model to establish standardized clinical management for all diagnosed patients; (4) Delivering in-office patient education about hypertension self-management through a health educator; (5) Training nurses and other care team members on proper home blood pressure monitor use so that they may train patients; (6) Improving accuracy of office-based blood pressure measurements through staff training, and ensuring that appropriate equipment is available in each room; and (7) Conducting post-visit calls with patients to assess confidence in blood pressure self-management and barriers to medication adherence.

WMYHC's EHR data reports indicate that, in October 2013, before implementing the pathway, 40.1 percent of WMY's patients were diagnosed with hypertension, and 52.3 percent of those patients were controlled. After implementing the pathway, in just twelve months hypertension diagnosis and control rates improved significantly. In fact, by September 30, 2014, 44.8 percent of WMYHC's patients had hypertension diagnoses and 59 percent of those had their hypertension under control.

The pathway has also helped connect patients to resources and emergency healthcare to meet their needs. NYSDOH is supporting WMYHC's efforts both directly and indirectly. NYSDOH staff shared evidence-based hypertension management guidelines to inform WMYHC's guideline development, and

provided an opportunity for WMYHC staff to interact with former NYSDOH Commissioner **Nirav Shah**, state officials, health IT staff, educational institutions, and others. Shah also provided leadership and support by sending letters to payers across the state encouraging them to get involved in the New York Million Hearts Learning Collaborative team. As a result, six new payers joined the collaborative, which is encouraging conversations about home blood pressure monitoring, patient incentives, and payment models for nurse visits, among other topics.

CONCLUSION

FQHCs play a critical role in improving hypertension identification, management, and control in both clinical and community settings. State health agencies have a number of opportunities to advance hypertension control by partnering with and providing support to FQHCs.

RESOURCES

Million Hearts webpage: This webpage provides information about the national Million Hearts initiative, including data on heart disease and stroke, ways that public health and healthcare stakeholders can support Million Hearts, and a wide variety of resources to support the "ABCS" of heart health, including hypertension management.

ASTHO Million Hearts webpage: This webpage presents an overview of the ASTHO Million Hearts Learning Collaborative and provides resources that state health agencies can use to get involved with and support the national Million Hearts initiative and hypertension management in general. Available resources include a Million Hearts State Engagement Guide, key recommendations for how state health agencies can support Million Hearts, and case studies of state health agencies who have successfully partnered with healthcare stakeholders to address hypertension management.

ASTHO Million Hearts Tools for Change: This online "toolbox" includes tools and resources to support multidisciplinary partners in the ASTHO Million Hearts Learning Collaborative to implement strategies to improve blood pressure control. The materials in the toolbox cover the following areas: community-clinical linkages, data-driven action, evidence-based programs, financing and policy, general hypertension data and information, quality improvement, and standardizing clinical practice.

National Association of Community Health Centers' issue brief "Partnerships between Federally Qualified Health Centers and Local Health Departments for Engaging in the Development of a Community-Based System of Care": This brief provides an overview of several partnership opportunities available to FQHCs and local health departments seeking to improve health outcomes in their community, while promoting cost-effective care.

[1] Murphy SL, Xu JQ, Kochanek KD. "Deaths: Final data for 2010." *Natl Vital Stat Rep*. 2013;61(4). Available at http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_04.pdf. Accessed 7-25-2014.
[2] CDC. "Million Hearts: About Heart Disease and Stroke." Available at http://millionhearts.hhs.gov/abouthds/overview.html. Accessed 7-25-2014.
[3] Wright J. "All about Million Hearts: Preventing a million together." Presented at the District of Columbia Health Million Hearts Meeting, May 21, 2014.
[4] CDC. "Million Hearts: The Initiative." Available at http://millionhearts.hhs.gov/aboutmh/overview.html. Accessed 7-17-14.
[5] IOM. "Primary Care and Public Health: Exploring Integration to Improve Population Health." Washington, CD: The National Academies Press, 2012. Available at http://www.iom.edu/Reports/2012/Primary-Care-and-Public-Health.aspx. Accessed 7-24-2014.
[6] National Association of Community Health Centers, 2014. "Fact Sheet: America's Health Centers." Available at http://www.nachc.com/client/America_CHCs1014.pdf. Accessed 3-1-2015.
[7] National Association of Community Health Centers, 2010. "Partnerships between Federally Qualified Health Centers and Local Health Departments for Engaging in the Development of a Community-Based System of Care." Available at http://www.nachc.com/client/documents/PartnershipsBetweenFederallyQualifiedHealthCentersAndLocalHealthDepartmentsforEngagingInTheDevelopmentOfACommunityBasedSystemOfCareNACHCOctober2010.pdf.Accessed 1-19-2015.
[8] National Association of Community Health Centers. "The Challenges." Available at http://www.nachc.com/health-center-challenges.cfm. Accessed 7-25-2014.
[9] CDC, 2011. "Fact Sheet: Health Disparities in Hypertension and Hypertension Control. Findings from the *CDC Health Disparities and Inequalities Report – United States, 2011.*" Available at http://www.cdc.gov/minorityhealth/CHDIR/2011/FactSheets/Hypertension.pdf. Accessed 7-25-2014.
[10] Shin P, et al. "Community Health Centers: The Challenge of Growing to Meet the Need for Primary Care in Medically Underserved Communities." Washington, DC: Kaiser Family Foundation Commission on Medicaid and the Uninsured. 2012. Available at http://www.kff.org/uninsured/upload/8098-02.pdf. Accessed 1-19-2015.
[11] HRSA, 2013. "Electronic Health Record (EHR) Information: 2013 National Data." Available at: http://bphc.hrsa.gov/uds/datacenter.aspx?q=tehr&year=2013&state. Accessed 3-1-2015.
[12] HRSA Bureau of Primary Health Care. "UDS Reporting Instructions for Health Centers." Available at http://bphc.hrsa.gov/healthcenterdatastatistics/reporting/2013udsreport.pdf. Accessed 7-14-2014.
[13] CDC. "Million Hearts: Resources." Available at http://millionhearts.hhs.gov/resources/protocols.html. Accessed 7-18-2014.
[14] Morganstern D. "Clinical workflow analysis—Process Defect Identification." Available at http://mehi.masstech.org/sites/mehi/files/documents/CPOE_Clinical_Workflow_Analysis.pdf. Accessed 7-18-2014.
[15] Summit County Public Health. "Care Coordination." Available at http://www.scphoh.org/COMMHEALTH/CARECOORD.html. Accessed 7-23-2014.

